

# SENATE BILL REPORT

## SB 5509

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As of February 8, 2011

**Title:** An act relating to mitigating carbon dioxide emissions resulting from fossil-fueled electrical generation.

**Brief Description:** Mitigating carbon dioxide emissions resulting from fossil-fueled electrical generation.

**Sponsors:** Senators Kline and Rockefeller.

**Brief History:**

**Committee Activity:** Environment, Water & Energy: 1/26/11

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### SENATE COMMITTEE ON ENVIRONMENT, WATER & ENERGY

**Staff:** William Bridges (786-7416)

**Background:** Carbon Dioxide Mitigation for Fossil-Fueled Energy Facilities. Since 2004 state law requires certain fossil-fueled thermal power facilities with a generating capacity of 25 megawatts (MW) or more to mitigate their carbon dioxide (CO<sub>2</sub>) emissions. The requirement applies to new power facilities seeking site certification from the Energy Facility Site Evaluation Council or an order of approval under the Washington Clean Air Act. The requirement also applies to existing facilities between 25 and 350 MW that increase their generating capacity by at least 25 MW or their emissions production of CO<sub>2</sub> by 15 percent or more.

Mitigation is required for 20 percent of the CO<sub>2</sub> emissions produced by a facility over a 30-year period, and must include one or a combination of the following options: (1) payments to an independent qualified organization; (2) direct purchase of permanent carbon credits; or (3) direct investment in CO<sub>2</sub> mitigation projects, including qualified alternative energy resources and cogeneration.

Qualified alternative energy resource has the same meaning as in the voluntary green-power purchase program. The term includes most forms of renewable energy such as wind, solar, and biomass from untreated wood, as well as specified hydropower.

Cogeneration means fossil-fueled thermal power facilities that meet federal energy standards and use heat or steam for commercial or industrial heating or cooling purposes.

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Option to Pay an Independent Qualified Organization. Facilities may choose to mitigate their emissions by paying an independent qualified organization a statutorily set \$1.60 per metric ton of CO<sub>2</sub>, either by lump sum or over a five-year period. For a cogeneration plant, the monetary amount is based on the difference between 20 percent of the plant's total carbon dioxide emissions and the cogeneration credit, which is the estimated annual CO<sub>2</sub> emissions that would be produced on an annual basis by a similar stand-alone facility that produces its own heating or cooling.

Option to Directly Invest in a Mitigation Project. Facilities may choose to directly invest in a mitigation project, such as energy efficiency measures and the direct application of combined heat and power (cogeneration). No plant is required to make a direct investment that would exceed the cost of paying an independent qualified organization for mitigation.

**Summary of Bill:** Amending the Definition of Cogeneration Credit. The definition is amended to include a measurement for thermal energy emissions. Where electricity in a stand-alone facility is used to make thermal energy, the emissions are based on a natural gas fired combined cycle generation plant with a heat rate of 7,100 British thermal units per kilowatt-hour of electricity.

Amending the Definition of Mitigation Project. The definition is amended to include recovery, transmission, and distribution of thermal energy from industrial or commercial waste heat sources through district energy networks.

Amending the Definition of Qualified Alternative Energy Resource. The definition is amended to include thermal energy recovered, transmitted, and distributed from cogeneration systems or industrial and commercial waste heat sources.

Expanding the Direct Investment Option. In addition to other forms of direct investment in a CO<sub>2</sub> mitigation project, fossil-fueled thermal power facilities may invest in the recovery, transmission, and distribution of thermal energy from existing electric generation or from industrial and commercial sources, or both.

Correcting a Cross-Reference. A technical change is made concerning a cross-reference to floating thermal power plants.

**Appropriation:** None.

**Fiscal Note:** Not requested.

**Committee/Commission/Task Force Created:** No.

**Effective Date:** Ninety days after adjournment of session in which bill is passed.

**Staff Summary of Public Testimony :** From Work Session on S-0872.2 held January 26, 2011: PRO: This legislation will encourage the development of combined heat and power (CHP) generation in Washington. When combined with district energy to heat buildings, CHP generation can significantly reduce carbon emissions. Seattle Steam is currently

developing a CHP plant in downtown Seattle, which should have an energy conversion efficiency reaching 90 percent, three times greater than a coal fired plant and twice as efficient as generating electricity alone in a gas fired plant. CHP plants like this are going to make significant inroads into carbon reduction in the state of Washington. Recovering lost heat is good for the climate and the economy. The current mitigation rate of \$1.60 per metric ton of CO2 is too low and should be higher, from \$6 to \$10. The ultimate goal is to reduce emissions not offset them.

From Public Hearing on SB 5509 held February 8, 2011: PRO: The bill will encourage the use of combined heat and power (cogeneration). The pricing level for carbon in the Energy Facility Site Evaluation Council (EFSEC) mitigation process should be higher than \$1.60. Mitigation monitoring results collected by EFSEC should be shared with the Legislature.

**Persons Testifying:** From Work Session on S-0872.2 held January 26, 2011: PRO: Chuck Collins, Cascade Power Group; Megan Lynch, Seattle Steam; Miguel Perez-Gibson, Climate Solutions, NW Energy Coalition.

From Public Hearing on SB 5509 held February 8, 2011: PRO: Dave Arbaugh, NW Intermountain Power Producers Coalition; Chuck Collins, Cascade Power Group.